

boundary. At Revelstoke, farther upstream in the basin, the highest recorded flow was 99 times as great as the lowest. By contrast the flows of the St. Lawrence River have a range of only two to one. It is not surprising that in the 1948 flood the Columbia killed fifty people, made 38,000 homeless and destroyed a community in the United States numbering 18,000.

These characteristics demonstrate the great need of multi-purpose storage developments to alleviate flood damage and to regulate the flow to increase the hydroelectric power resources of the river basin. These power resources represent the largest energy potential of any river in North America.

3. Power Patterns in the Pacific Northwest and British Columbia

British Columbia and the Pacific Northwest are the natural heirs to the fruits of the Columbia River. Their joint and several power patterns emphasize this inevitable geographical fact and the economic-technical relationships, in power and flood control, that arise out of that fact.

(1) Power Development in the United States Pacific Northwest: In the United States the hydro plants of the Columbia River basin serve an area known as the Pacific Northwest which includes principally the states of Washington, Oregon, Idaho and Montana west of the Continental Divide. At the present time hydro plants provide about 96 per cent of this area's electrical energy. Power installations, complete or under construction on the main stem of the Columbia River alone now total approximately 10 million kilowatts and the full potential of both the main stem and its tributaries in the United States is estimated to be in the order of 35 million kilowatts of installed capacity, of which over 15 million kilowatts has already been developed. The Second World War created large demands in the Pacific Northwest for power, so that in 1945 the total power requirements in the Pacific Northwest were of the order of 15 billion kilowatt hours per annum, and the growth rate up to 1957 in the energy requirements was approximately 11 per cent per annum. There was a falling-off in 1957 to 1962, when the growth rate was only about 4 1/2 per cent, but it is now expected that this rate will increase to approximately 6 1/2 per cent per annum for the period up to 1980.

Quite apart from the boom conditions created by the Second World War the availability of power in the Pacific Northwest has demonstrated how industry and population could be attracted to this part of the North American Continent.

(2) Power Development in British Columbia: At the present time there are undeveloped hydroelectric power sites in British Columbia having a potential of about 22 million kilowatts of prime power, or about 33 million kilowatts of capacity at 65 per cent load factor. In comparison with this, the present total of hydroelectric power installations which